

ELECTROCHEMICAL MACHINING TOOL  
ASSEMBLY AND METHOD OF MONITORING  
ELECTROCHEMICAL MACHINING

ABSTRACT OF THE DISCLOSURE

5 An electrochemical machining tool assembly includes first and second tools that are spaced apart from one another so that a workpiece can be located therebetween. The assembly also includes a first ultrasonic transducer mounted in the first tool and a second ultrasonic transducer mounted in the second tool. The electrochemical machining process is monitored by generating ultrasonic waves with the first and second ultrasonic transducers, and then detecting the arrival times, at the first and second ultrasonic transducers, of certain reflections of the ultrasonic waves. The detected arrival times are then used to calculate parameters such as the gap sizes between the first and second tools and a workpiece situated therebetween and the thickness of the workpiece.

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